



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Speight Seed Farms, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE  
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *seventeen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS SEED OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS PERMITTED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

TOBACCO

'Speight G-23'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 11th day of April in the year of our Lord one thousand nine hundred and seventy-seven.

Attest:

*[Signature]*  
Commissioner  
Plant Variety Protection Office  
Grain Division  
Agricultural Marketing Service

*[Signature]*  
Secretary of Agriculture



UNITED STATES DEPARTMENT OF AGRICULTURE  
CONSUMER AND MARKETING SERVICE  
GRAIN DIVISION  
HYATTSVILLE, MARYLAND 20782

FORM APPROVED  
OMB. NO.

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

1. VARIETY NAME OR TEMPORARY DESIGNATION <b>Speight G-23</b>		2. KIND NAME <b>flue-cured tobacco</b>		FOR OFFICIAL USE ONLY PVPO NUMBER <b>7500065</b>	
3. SPECIES NAME <b>Nicotiana Tobacum</b>		4. FAMILY NAME <b>Solanaceal-nightshade</b>		FILING DATE <b>3-10-75</b>	TIME <b>10:00</b> A.M.
		5. DATE OF DETERMINATION <b>December-1973</b> <i>letter 2/18/1977</i>		FEE RECEIVED <b>750.00</b>	CHARGES <b>_____</b>
6. NAME OF APPLICANT(S) <b>Speight Seed Farms, Inc.</b>		7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) <b>Route 1, P. O. Box 507 Winterville, N. C. 28590</b>			8. TELEPHONE AREA CODE AND NUMBER <b>(919) 756-0718</b>
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <b>Corporation</b>			10. STATE OF INCORPORATION <b>North Carolina</b>		11. DATE OF INCORPORATION <b>2-26-75</b>

12. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 12A. Exhibit A, Origin and Breeding History of the Variety (See Section 52, P.L. 91-577)
- ☒ 12B. Exhibit B, Botanical Description of the Variety
- ☒ 12C. Exhibit C, Objective Description of the Variety
- ☒ 12D. Exhibit D, Particulars of Trial Performance
- ☒ 12E. Exhibit E, Statement of the Basis of Applicant's Ownership

The applicant declares that a viable sample of basic seed that is planted to produce the variety commercially will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable. (See Section 52, P.L. 91-577).

13A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? (See Section 142, P.L. 91-577) (If "Yes," answer 13b and 13c below.) ☒ YES ☐ NO

13B. Does the applicant(s) specify that this variety be limited as to number of generations? ☒ YES ☐ NO

13C. If "Yes" to 13B, how many generations of production beyond breeder seed? **Three generations**  
**Foundation-Registered-Certified**

14. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

**M. L. Grimsley  
Speight Seed Farms, Inc.  
P. O. Box 507  
Winterville, N. C. 28590**

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is entitled to protection under the provisions of Section 42 and is distinct, uniform, and stable as required in Section 41 of the Plant Variety Protection Act (P.L. 91-577).

**2-28-75**

(DATE)

**M. L. Grimsley**

(SIGNATURE OF APPLICANT)

*M. L. Grimsley*  
(SIGNATURE OF APPLICANT)

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12-A

Exhibit-A: Origin and breeding history of this variety

Name: Speight G-23


Pedigree: N.C. 2326 X N.C. 95

1. Speight G-23 originated from a hand pollinated cross between the well-known varieties N.C. 2326 X N.C. 95. This cross was made on Speight Seed Farms near Winterville, N. C. Descriptions of the parents can be found in most all tobacco information as they are used as checks in the tobacco variety testing programs in most tobacco states.

2. This cross was made in July, 1966. Results from the cross was numbered Breeding Line L-2. Individual plant selections were made in our disease infested nursery through the sixth generation. The line seemed to become stable in the fifth generation. Breeding Line L-2 became Speight G-23 in the sixth generation.

3. Variants during this period were mostly two off-type plants, one a narrow stringy type, the other a large variant with extra large fan shaped leaves. The true type selected for was similar to N.C. 95 yet being clean of bottom suckers, a little shorter and with closer leaf spacing than N.C. 95, having about the same green color as N.C. 95.

4. Speight G-23 was tested in the N.C. Official Variety Test in 1972 and found to be stable. In 1973 it was entered in the small plot regional testing program and in the regional farm test in 1974. During these years it was being tested on Speight Seed Farms and by farmers in larger quantities. G-23 was found to be true to type and stable in all these tests.

  
Signed: M. L. Grimsley  
Title: Plant Breeder

12-B


Exhibit: Botanical Description of the Variety

Name: Speight G-23

1. Seed of Speight G-23 are larger in size than those of N.C. 95, about the same size as those of N.C. 2326. The leaves are fairly broad from the top to bottom of the stalk. They hang straight out from the stalk parallel to the ground. G-23 grows a larger seed head than N.C. 95 with pink and white flowers.
2. This variety has fewer ground suckers and grows about 37 inches tall compared to N.C. 95 at about 40 inches. Leaves are about the same width and length as N.C. 95 with some closer internodes. Other than this G-23 is similar in plant type to N.C. 95.
3. G-23 flowers two or three days earlier than N.C. 95. The plant type resembles N.C. 95 except being shorter. The cured leaf resembles N.C. 95 except being more to the lemon side. G-23 has less ground suckers than N.C. 95.

4. Disease Resistance:

Black Shank; moderate  
Granville Wilt: high  
Fusarium Wilt: high  
Brown Spot: tolerant  
Root Knot: resistant

  
Signed: M. L. Grimsley  
Title: Plant Breeder

75-65

# Speight Seed Farms, Inc.

BREEDERS, REGISTERED AND CERTIFIED SEED

TOBACCO SEED - SOYBEANS - HYBRID CORN

BOX 507 • PHONE (919) 756-0718

WINTERVILLE, N. C. 28590

## 12-B-Botanical Description of the Variety

Name: Speights G-23

Pedigree: NC 2326 x NC 95

Release: Dec, 1974

1. G-23 most closely resembles NC 95 except having a few more ground suckers ( 3.4 vs 3.5), grows shorter (37 vs 40 inches). Leaves are about one inch narrower. Leaves are smoother than NC 95.

2. G-23 flowers about 3 days earlier than NC 95. Leaves hang out parallel with the ground. It grows about 1 leaf less per plant (16.4 vs 17.7). Cured leaf is more lemon colored than NC 95. It produces a larger seed head with some ~~smaller~~ seeds than NC 95.

## Five Locations

Performance in N. C. Official Variety Test 1972

Variety or line	Yield lbs/a	Days to flower	Leaves per plant	Height of plants	Ground suckers
NC 95	2244	62	17.7	41	3.5
G-23	2167	59	16.4	37	3.4

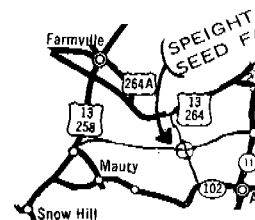
Variety or line	Width of leaf(in)			Length of leaf(in)		
	5th	10th	15th	5th	10th	15th
NC 95	8.8	11.0	11.9	20.2	23.0	21.8
G-23	8.3	10.0	11.0	20.4	23.0	21.2

## Level of % Diseased Resistance 1974

Variety or line	Black shank	Bacterial wilt	Root knot	Brown spot
NC 95	9.1	14.0	Res.	Mod. tol.
G-23	4.5	10.0	Res.	Mod. tol.



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GOOD SEED OF AN ADAPTED VARIETY IS THE FOUNDATION OF A GOOD CROP

## GROUPING:

## STANDARD VARIETIES

01 = NC 95      02 = NC 2326      03 = COKER 319      04 = HICKS      05 = SPEIGHT G-28      06 = SC 58  
 07 = Ky 151      08 = BURLEY 21      09 = BURLEY 49      10 = Ky 10      11 = MARYLAND 609      12 = Ky 165  
 13 = Pennbel 69      14 = HAVANA 503      15 = FLORIDA 17      16 = OTHER

## 7. LEAF NUMBER (Select code from Standard Varieties listed above)

TOPPED NORMAL:

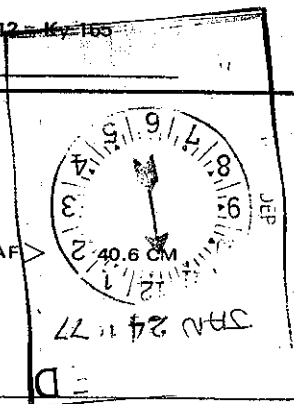
1 6 4 NO. PER PLANT

1 6 4 NO. OF LEAVES > 40.6 CM

9 4 CM HEIGHT OF LAST LEAF

NOT TOPPED:

2 0 4 NO. OF LEAVES OR NODES TO "CROWFOOD" FROM 1ST HARVESTABLE LEAF



## 8. INTERNODES (Topped) (Select code from Standard Varieties listed above)

5 8 MM LENGTH

MM SHORTER THAN

MM LONGER THAN

1

MM LONGER THAN

0 1

## 9. LEAF CHARACTERISTICS:

PETIOLE ANGLE:

3 0 DEGREES

1

GROUPING: 1 = < 35°

2 = 35-45°

3 = 46-65°

4 = > 65°

LEAF CARRIAGE

2 1 = ARCHED (DROOPING)

2 = HORIZONTAL

3 = UPRIGHT

LEAF COLOR (At topping or when 50% of plants with 1 flower)

2 1 = LIGHT GREEN

2 = GREEN

3 = DARK GREEN

4 = YELLOW-GREEN

5 = YELLOW

LEAF SHAPE:

3 1 = BROADER THAN LONG

2 = LENGTH EQUALS WIDTH

3 = LONGER THAN BROAD

1 1 = BROADEST AT MIDDLE

2 = BELOW MIDDLE

3 = ABOVE MIDDLE

TIP SHAPE

2 1 = ACUTE

2 = ACUMINATE

3 = OBTUSE

VENATION PATTERN:

2 1 = SQUARE

2 = ANGULAR

LEAF SURFACE

2 1 = SMOOTH (HICKS)

2 = PUCKERED (NC 95)

2 1 = WAVY

2 = NOT WAVY

2 1 = RECURVED

2 = NOT RECURVED

## 10. FLOWERS:

2 COLOR: 1 = WHITE

2 = PINK

3 = RED

4 = OTHER

FLOWER HEAD HABIT:

2 1 = CLOSED (NC 95)

2 = INTERMEDIATE

3 = OPEN (HICKS)

## 11. PLANT FORM

2 1 = PYRAMIDAL

2 = COLUMNAR

3 = OTHER (Specify)

## 12. GROUND SUCKERS:

2 4 NO. PER PLANT

## 13. DISEASE (0 = Not tested, 1 = Susceptible, 2 = Resistant)

2 BLACK SHANK (RACES)

1

2 FUSARIUM WILT (NICOTIANA)

2 BLACK ROOT ROT

2 FUSARIUM WILT (BATATAS)

1 BLUE MOLD

0 FROGEYE

0 WILDFIRE (SPECIES)

0 BROWN SPOT TOLERANT

0 BLACKFIRE

2 BACTERIAL WILT

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## 13. DISEASE (0 = Not tested, 1 = Susceptible, 2 = Resistant)

<input type="checkbox"/> 0	POTATO VIRUS Y	<input type="checkbox"/> 1	TMV
<input type="checkbox"/> 0	NEMATODE ROOT ROT (LESION, SPECIES)	<input type="checkbox"/> 2	ROOT KNOT NEMATODE
<input type="checkbox"/> 0	TOBACCO ETCH VIRUS	<input type="checkbox"/> 0	OZONE AIR POLLUTION
<input type="checkbox"/>	OTHER (Specify)	<input type="checkbox"/>	OTHER (Specify)

NOTE: Under "Comments", give comparative reaction with a standard variety appropriate for each disease tested and indicate if disease reaction of the variety exceeds, equals or is less than that of the standard.

## 14. LEAF CONSTITUENTS (Give data for described and standard variety):

VARIETY	NICOTINE %	NOR NICOTINE %	TOTAL NITROGEN %	REDUCING SUGARS % (FLUE-CURED)
SELECTED	3 8 9	2 9	2 2 5	1 3 8 2
STANDARD	3 6 4	3 0	2 3 2	1 4 3 2
NAME OF STANDARD VARIETY	NC 95	NC 95	NC 95	NC 95

## 15. VARIETIES MOST CLOSELY RESEMBLING THAT DESCRIBED FOR THE CHARACTERS GIVEN:

CHARACTER	VARIETY	CHARACTER	VARIETY
MATURITY	NC 95	LEAF TIP SHAPE	NC 95
LEAF LENGTH	NC 95	VENATION PATTERN	NC 95
LEAF WIDTH	NC 2326	LEAF SURFACE	NC 95
LEAF CURVATURE	NC 2326	LEAF MARGIN	NC 95
PETIOLE ANGLE	NC 95	LEAF COLOR	NC 95
LEAF SHAPE	NC 2326	PLANT FORM	NC 95

## 16. COMMENTS (For increasing accuracy of description)

G-23 most closely resembles NC 95, except for being approximately two inches shorter, growing one ~~leaf less~~ per plant with closer internodes, and leaves are smoother and ~~lighter~~ <sup>lighter</sup> green. Top leaves are shorter with heavier body.

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# Speight Seed Farms, Inc.

BREEDERS, REGISTERED AND CERTIFIED SEED

TOBACCO SEED - SOYBEANS - HYBRID CORN

BOX 507 • PHONE (919) 756-0718

WINTERVILLE, N. C. 28590

## 12-D- Exhibit D- Particulars of Trial Performance-Speights G-23:

Most Closely resembles NC 95, but differs in maturing about three days earlier (59 vs 62 days), grows about three inches shorter (38 vs 41 inches), produces narrower and smoother leaves (9.8 vs 10.8 inches), carries about one less leaf per plant (16.4 vs 17.7 leaves). Leaves are greener. Top leaves are heavier bodied.

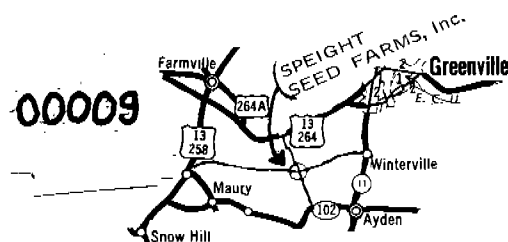
## 1972 N. C. Official Variety Test--five locations

Variety or lines	Yield lbs/A	Days to flower	Leaves per plant	Height of plant	Ground suckers
NC 95	2244	62	17.7	41	3.5
G-23	2167	59	16.4	38	3.4

Variety or line	Width of leaf (in)			Length of leaf (in)		
	5th	10th	15th	5th	10th	15th
NC 95	8.8	11.0	11.9	20.2	23.0	21.8
G-23	8.3	10.0	11.0	20.4	23.0	21.2

Variety or line	Analysis of cured leaf				Ratios	
	% Nic	% Sol. Sug.	% Tot. Nic	%Nor.Nic.	T.N.Nic	Sug.Nic
NC 95	3.64	14.32	2.32	.30	.66	4.54
G-23	3.89	13.82	2.25	.29	.59	3.92

Variety or line	Disease index or level of resistance					1972
	Black, shank	Granville wilt	Fusarium wilt	Root knot	Brown spot	
NC 95	6.2	8.0	15.0	Res.	Mod. Tol.	
G-23	10.4	11.0	16.6	Res.	Mod. Tol.	



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12-D

EXHIBIT-D Data Indicative of Novelty  
NAME: Speight G-23  
PEDIGREE: N.C. 2326 X N.C. 95  
RELEASE: December, 1975

DATA FROM REGIONAL SMALL PLOT TEST-1973

ENTRY	YIELD PER/A	VALUE \$/A	INDEX \$/CWT	NIC. %	NOR.NIC. %	TOT.ALK. %	NIT.TO. NIC.	SOL.SUG. NIC.
<del>XXXXXXXX</del>								
N.C.2326	2512	\$2196.	\$87.40	2.90	.13	3.04	0.83	5.08
G-23	2643	2304.	87.16	2.95	.13	3.10	0.76	4.41
N.C.95	2597	2261.	87.03	2.68	.15	2.85	0.85	5.53

DATA FROM N. C. OFFICIAL VARIETY TEST-1974

ENTRY	YIELD LBS./A	VALUE INDEX		DOL/A	DOL/CWT.	GRADE INDEX		QUALITY INDEX	DAYS TO FLOWER	LEAVES PR. PLANT	HEIGHT OF PLANT	GROUND SUCKERS
N.C.2326	2702	2642.		2642.	97.71	52		28.6	59	17.6	40	0.4
G-23	2620	2546.		2546.	97.14	47		33.0	60	16.9	37	0.9
N.C.95	2611	2523.		2523.	96.55	48		31.5	61	17.2	38	1.7

TOTAL ALKALOID TEST FROM SPEIGHT SEED FARMS--1974

N.C. 2326	3.37
Speight G-23	3.87
N.C. 95	3.39

SIGNED: *M. L. Grimsley*  
TITLE: Plant Breeder

75-65

# Speight Seed Farms, Inc.

BREEDERS, REGISTERED AND CERTIFIED SEED

TOBACCO SEED - SOYBEANS - HYBRID CORN

BOX 507 • PHONE (919) 756-0718

WINTERVILLE, N. C. 28590

December 17, 1975

Joseph J. Higgins  
Examiner, Plant Variety Protection  
Office, Grain Division

Dear Sir:

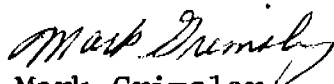
I am sending additional data taken from the 1975 N. C. Official Variety Test. I hope this will support data given in Exhibit D previously on Speight's G-23. This data was taken from the year 1975 being averaged over four locations replicated three times at each location.

## Exhibit D

Variety name	Ground suckers	No of leaves per plant	Plant height	Days to Flower
N. C. 95	0.5	18.0	45 in.	63
Speight G-23	0.4	17.3	43	62

In Exhibit B on Speight's G-23, I stated the flowers were pink and white. That was an error. I was trying to say that each individual flower was pink and white. The true color of all flowers on Speight's G-23 are pinkish white or light pink, being more pink than white. There are no variants in G-23. In Exhibit C, I should have stated flowers on Speights G-23 were pinkish white or light pink rather than indicating they were pink.

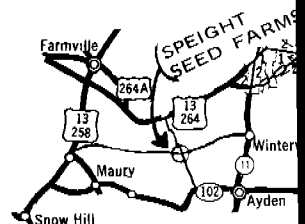
Sincerely,



Mark Grimsley  
Plant Breeder  
Speights Seed Farms, Inc



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GOOD SEED OF AN ADAPTED VARIETY IS THE FOUNDATION OF A GOOD CROP

12-E

EXHIBIT: E Statement of Basis of Applicants Ownership  
NAME: Speight G-23  
PEDIGREE: N.C. 2326 X N.C. 95  
RELEASE: December-1975

Speight Seed Farms, Inc., Winterville, N. C. believes itself to be the first and only breeder of the tobacco variety Speight G-23 for which we solicit a Certificate of Protection.

SIGNED: *M. L. Grimsley*  
TITLE: Plant Breeder

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